CLAIMS:

5

10

15

- 1. A system for identifying and reporting a presence of a substance, the system comprising:
 - a deployable data collection mechanism for collecting data for identifying the substance;
 - a position-determining mechanism adapted to determine an actual geographic location of the deployable data collection mechanism;
 - a database that associates a plurality of geographic locations with respective local reporting authorities and respective local reporting policies, such that the actual geographic location of the deployable data collection mechanism can be used to identify an appropriate local reporting authority and appropriate local reporting policy; and
 - a transmitter adapted to transmit the actual geographic location and the data collected by the deployable data collection mechanism, and to contact the appropriate local reporting authority in accordance with the appropriate local reporting policy.
- 2. The system as set forth in claim 1, wherein the position-determining mechanism includes a global positioning system receiver.

20

25

30

A system for identifying and reporting a presence of a substance, the 3. system comprising: a remote sensing unit including a position-determining location determination mechanism adapted to determine an actual geographic location of the remote sensing 5 unit, a data collection mechanism for collecting data for identifying the substance, a first transmitter adapted to transmit the actual geographic location and the data collected by the data collection mechanism; and 10 a control unit including a receiver adapted to receive the actual geographic location and the . data transmitted by the remote sensing unit, a database that associates a plurality of geographic locations with respective local reporting authorities and respective local 15 reporting policies, such that the actual geographic location of the remote sensing unit can be used to identify an appropriate local reporting authority and an appropriate local reporting policy, and a second transmitter adapted to transmit the actual geographic 20 location and the data, and to notify the appropriate local reporting authorities in accordance with the appropriate local reporting policies.

- 25 4. The system as set forth in claim 3, wherein the position-determining mechanism includes a global positioning system receiver.
- 5. The system as set forth in claim 3, further including one or more remote data processing and storage servers for receiving the actual geographic location and the data transmitted by the control unit and making the data available to authorized persons, including the appropriate local reporting authority, via a wide area network.

- A system for identifying and reporting a presence of a substance, the 6. system comprising: a remote sensing unit including a position-determining location determination mechanism adapted to determine an actual geographic location of the remote sensing 5 unit. a data collection mechanism for collecting data for identifying the substance. a transmitter adapted to transmit the actual geographic location and the data collected by the data collection mechanism; 10 a control unit including a receiver adapted to receive the actual geographic location and the data transmitted by the remote sensing unit, a database that associates a plurality of geographic locations with respective local reporting authorities and respective local 15 reporting policies, such that the actual geographic location of the remote sensing unit can be used to identify an appropriate local reporting authority and an appropriate local reporting policy, and a second transmitter adapted to transmit the actual geographic 20 location and the data, and to notify the appropriate local reporting authorities in accordance with the appropriate local reporting policies; and one or more remote data processing and storage servers adapted to receive the actual geographic and the data transmitted by the control unit and 25 to make the data available to authorized persons, including the appropriate local reporting authority, via a wide area network.
- 7. The system as set forth in claim 6, wherein the position-determining 30 mechanism includes a global positioning system receiver.